

**APPARATUS AND METHOD FOR ADJUSTING FILTER FREQUENCY
IN RELATION TO SAMPLING FREQUENCY**

Abstract of the Invention

- A self-tuning filter is disclosed. The self-tuning filter includes a digital
- 5 clocking signal and an input coupled to the digital clocking signal, whereby the
input reads a value incident on the input when the digital clocking signal changes
to a predetermined state. A clock-tunable filter is, furthermore, coupled to the
digital clocking signal so that the frequency of the clock-tunable filter is adjusted
in relation to a sampling frequency at which the digital clocking signal operates.
- 10 The self-tuning filter may be applied to an input of a data acquisition unit and
applied to an input having a variable sampling frequency. A method of
controlling the frequency of a clock-tunable filter is also disclosed.